Jesus Mancilla

Staff Quantitative UX Researcher | ML-Enabled Insight Systems

Decision-driving insights at scale: survey & log analytics, ML-assisted research ops, standardized evaluation

+1 650 391 4301 | jesus@jgmancilla.com | LinkedIn.com/in/jegama | GitHub.com/jegama | jgmancilla.com

Professional Summary

Staff-level UXR leader blending **quantitative research at scale** with **ML/LLM tooling** to accelerate product decisions. Shipped reusable analysis pipelines, standardized metrics, and research ops that shortened feedback loops across **500M+ MAU** and **70M+ devices**. Noted for turning ambiguity into **operational, defensible insight systems** (e.g., open-ended survey analysis from ~**30h to under 8h**; auto-reporting from ~**4h to under 5m**; doc classification from ~**90m to under 5m**). Bilingual (English/Spanish); strong cross-functional influence and executive-facing synthesis.

Technical Stack & Domains

Quant UX Research: Survey design & analytics, longitudinal tracking, KPI frameworks, experimentation, large-scale log analysis, dashboards
Mixed-Methods: Study design (interviews, diaries, ethnography, usability lab/remote/field), triangulation, research ops
ML/LLMs: Text classification, embeddings/vector search, clustering, RAG, prompting, evaluation/observability, HIL pipelines
Tooling: Python, SQL, statistical testing (t-tests/ANOVA/regression), FastAPI, LangChain/LangGraph, CI/CD, Docker
Domains & Scale: Social/consumer media (500M+ MAU), TV/streaming (~70M devices), commerce, education, automotive/HF

Work Experience

Argomai — Houston, TX (Remote)
Senior Applied Scientist (Consultant) — Jan 2025 – Present

- Owned enterprise **GenAI/ML architecture and platform governance** (domain models, service boundaries, data governance, NFRs) for insight workflows across clients.
- **Reduced document classification** from ~**90m to under 5m** and PM reporting from **6h/wk to under 1h** via automation and retrieval.
- Deployed **LLM-powered survey analysis** workflows cutting manual review time and error risk; standardized governance across clients; frameworks later peer-reviewed.
- Ran generative and evaluative interviews (screeners, protocols, synthesis) and translated findings into metrics, roll-out plans, and decision checklists with executives to de-risk launches.

Meta — Houston, TX (Remote)
Senior Quantitative UX Researcher — Jan 2024 – Jan 2025

- Engineered a **6-step GenAI pipeline** (Council of Agents, Self-consistency, LLM-as-a-judge, HITL) to classify open-ended feedback; **reduced analysis time** ~**73%** (30h to under 8h).
- Conducted **longitudinal research** tracking model performance pre/post-launch; merged survey data with **behavioral logs** to ground roadmap decisions in empirical reality.
- Developed and standardized a **Python analytics toolkit** (regressions, ANOVA, T-tests) adopted by the wider research team to streamline their own analysis.
- Designed a **Human-in-the-loop (HITL)** workflow where expert review created curated few-shot examples to continuously refine the model.

Roku — San Jose, CA
Senior User Experience Researcher — Jan 2021 – Nov 2023

- Developed a **Modular Survey Analysis System** for a weekly sentiment survey; **reduced reporting time from 4h to under 5m** via context-aware logic and automated stats.
- Led quant/qual device research; analyzed behavioral logs from **70M+ devices** to support usability testing on hardware remotes.
- Built an **AI-powered indexed database** of UX/CI research, enabling org-wide self-serve discovery and faster executive reporting.

Walmart Global Tech — Sunnyvale, CA
Senior User Experience Researcher — Aug 2019 – Nov 2020

- Led analytics for Sam's Club mobile in **Tableau**; established KPIs and dashboards linking **user-interaction + business metrics** to UX bets.
- Led cross-border (US/MX) standardization of surveys & research workflows; designed and deployed surveys in **Medallia** and **SurveyMonkey**.
- Created **Kanban-based research ops boards** in Jira/Confluence to prioritize requests, visualize WIP, and coordinate stakeholders across markets.

Scrapworks Inc. — Palo Alto, CA
Data Scientist — Sep 2017 – Aug 2019

- **60% reduction** in forecasting error; built dashboards over 20 years of sales data (~**30% sales growth**).
- Initiated NLP merchandise classifier; productionized ingestion/cleaning pipelines across sources.

Suggestic Mexico City, Mexico
Senior User Experience Researcher Dec 2016 – Sep 2017

- Led the transition from conversational to graphical interfaces using data insights, improving engagement and functionality for a consumer nutrition coaching app.
- Used Lookback to run remote usability studies on nutrition coaching flows, iterating interaction patterns based on observed friction and analytics.

Stanford University Stanford, CA
User Experience Researcher May 2016 – Nov 2016

- Designed safe, replicable on road driver stress protocols for automotive UX studies, collecting and analyzing over 150 hours of car, biometric, and video data.
- Contributed to algorithms with about 90 percent stress detection accuracy and co authored work on automotive UI and pedestrian interactions.

ITAM Mexico City, Mexico
User Experience Researcher Aug 2014 – May 2016

- Created custom data visualizations and analyzed psychophysiological signals, identifying user behavior patterns with machine learning techniques.
- Led usability testing across wearable, mobile, and web platforms, applying analytical insights to improve interaction and satisfaction metrics.

Selected Projects (Research Systems & At-Scale Insight)

Quant UX at Scale: 6-step GenAI pipeline (Council of Agents, LLM-as-a-judge); **time per study reduced from ~30h to under 8h** in **500M+ MAU** context.

Research Librarian (AI Index): Multi-engine semantic retrieval to surface prior insights and drive reuse.

Modular Survey Analysis System: Weekly sentiment dashboard + prototype classifier; **reporting time reduced from ~4h to under 5m**.

Customer Support Bot (Blueprint): RAG + evaluation/observability + safety rails; solution-spotlight answers.

Education

Instituto Tecnológico Autónomo de México (ITAM)
M.S. in Computer Science (HCI/AI Focus) 2014 – 2016

Universidad de Colima
B.A. in Psychology 2009 – 2013

Selected Publications

Santana-Mancilla, P. C., Guerrero-Ibáñez, A., Contreras-Castillo, J., Garcia-Mancilla, J., & Anido-Rifón, L. (2025). Sustainable Urban Mobility: Leveraging Generative AI for Symmetry-Aware Traffic Light Optimization. Symmetry, 17(12), 2083.

Ramos-Rivera, R. E., Santana Mancilla, P. C., Garcia-Mancilla, J., & Gaytán-Lugo, L. S. (2025). Language models in education: Generative AI to optimize teacher performance analysis. InnovAcademica, 1(2), 74–85.

Ramos-Rivera, R. E., Garcia-Mancilla, J., Cárdenas-Villa, G. E., & Santana-Mancilla, P. C. (2024). Towards Improving Teacher Performance Assessment through Human-Centered AI-Powered Survey Analysis: An Approach Using Large Language Models (LLM). Avances en Interacción Humano-Computadora, 9(1), 261–264.

Garcia-Mancilla, J., Ramirez-Marquez, J. E., Lipizzi, C., Vesonder, G. T., & Gonzalez, V. M. (2018). Characterizing negative sentiments in at-risk populations via crowd computing: A computational social science approach. International Journal of Data Science and Analytics.

For full list, see: jgmancilla.com/research-papers